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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2021/0292392 A1**
ZHANG et al. (43) **Pub. Date: Sep. 23, 2021**(54) **ANTI-SARS-COV-2 ANTIBODIES AND USES THEREOF**(71) Applicant: **TSB THERAPEUTICS (BEIJING) CO., LTD.**, Beijing (CN)(72) Inventors: **Zheng ZHANG**, Shenzhen (CN); **Linqi ZHANG**, Beijing (CN); **Lei LIU**, Shenzhen (CN); **Qi ZHANG**, Beijing (CN); **Bin JU**, Shenzhen (CN); **Xuanling SHI**, Beijing (CN); **Qing ZHU**, Beijing (CN)(73) Assignee: **TSB THERAPEUTICS (BEIJING) CO., LTD.**(21) Appl. No.: **16/953,304**(22) Filed: **Nov. 19, 2020**(30) **Foreign Application Priority Data**

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(57) **ABSTRACT**

Provided herein are modified anti-SARS-COV-2 antibodies or antigen binding fragments thereof having extended half life and optimized immune activities. Disclosed herein is also directed to pharmaceutical compositions comprising the same and a method for treating or preventing a disease in human patients that is caused by or related to the infection of SARS-COV-2.

Specification includes a Sequence Listing.